



DEPARTMENT OF THE AIR FORCE  
59TH MEDICAL WING (AETC)  
JOINT BASE SAN ANTONIO - LACKLAND TEXAS



15 JUNE 2017

MEMORANDUM FOR SGOZ

ATTN: MAJ BRYANT J WEBBER

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled **Athletic Trainer Integration in U.S. Air Force Basic Training** presented at/published to **SURF 2017 (San Antonio TX, June 16, 2017)** in accordance with MDWI 41-108, has been approved and assigned local file #**17260**.
2. Pertinent biographic information (name of author(s) title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.
3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are a 59 MDW staff member, we can forward your request for funds to the designated Wing POC at the Chief Scientist's Office, Ms. Alice Houy, office phone: 210-292-8029; email address: [alice.houy.civ@mail.mil](mailto:alice.houy.civ@mail.mil).
4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

Linda Steel-Goodwin

LINDA STEEL-GOODWIN, Col, USAF, BSC  
Director, Clinical Investigations & Research Support



## PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS

### INSTRUCTIONS

#### USE ONLY THE MOST CURRENT 59 MDW FORM 3039 LOCATED ON AF E-PUBLISHING

1. The author must complete page two of this form:
  - a. In Section 2, add the funding source for your study [ e.g., 59 MDW CRD Graduate Health Sciences Education (GHSE) (SG5 O&M); SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRDP); NIH; Congressionally Directed Medical Research Program (CDMRP) ; Grants; etc.]
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4. Attach a copy of your abstract, paper, poster and other supporting documentation.
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9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on this form. **Note:** For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.
10. If your manuscript is accepted for scientific publication, please contact the 59 CRD/Publications and Presentations Section at 292-7141. This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DITC). See 59 MDWI 41-108, *Presentation and Publication of Medical and Technical Papers*, for additional information.
11. The Joint Ethics Regulation (JER) DoD 5500.07-R, *Standards of Conduct*, provides standards of ethical conduct for all DoD personnel and their interactions with other non-DoD entities, organizations, societies, conferences, etc. Part of the Form 3039 review and approval process includes a legal ethics review to address any potential conflicts related to DoD personnel participating in non-DoD sponsored conferences, professional meetings, publication/presentation disclosures to domestic and foreign audiences, DoD personnel accepting non-DoD contributions, awards, honoraria, gifts, etc. The specific circumstances for your presentation will determine whether a legal review is necessary. **If you (as the author) or your supervisor check "NO" in block 17 of the Form 3039, your research or technical documents will not be forwarded to the 502 ISG/JAC legal office for an ethics review.** To assist you in making this decision about whether to request a legal review, the following examples are provided as a guideline:

For presentations before professional societies and like organizations, the 59 MDW Public Affairs Office (PAO) will provide the needed review to ensure proper disclaimers are included and the subject matter of the presentation does not create any cause for DoD concern.

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**NOTE:** All abstracts, papers, posters, etc., should contain the following disclaimer statement:

**"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components"**

**NOTE:** All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving humans:

**"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DODI 3216.02\_AFI 40-402."**

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**"The experiments reported herein were conducted according to the principles set forth in the National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals and the Animal Welfare Act of 1966, as amended."**



<b>PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS</b>			
1. TO: CLINICAL RESEARCH	2. FROM: (Author's Name, Rank, Grade, Office Symbol) Bryant J. Webber, Maj, USAF, MC, 559 THLS/SGOZ	3. GME/GHSE STUDENT: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	4. PROTOCOL NUMBER: 20150051N
5. PROTOCOL TITLE: ( <b>NOTE:</b> For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.) Athletic Trainer Integration in U.S. Air Force Basic Training			
6. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED: Athletic Trainer Integration in U.S. Air Force Basic Training			
7. FUNDING RECEIVED FOR THIS STUDY? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO FUNDING SOURCE: CDMRP			
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<input checked="" type="checkbox"/> 11c. POSTER (To be demonstrated at meeting: name of meeting, city, state, and date of meeting.) SURF 2017 (San Antonio, TX, June 16, 2017) (please note we have written permission from the trainee and 737 TRG for the photo)			
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DATE May 26, 2017			
14. 59 MDW PRIMARY POINT OF CONTACT (Last Name, First Name, M.I., email) Webber, Bryant J. (bryant.j.webber.mil@mail.mil)			15. DUTY PHONE/PAGER NUMBER 671-4087
16. AUTHORSHIP AND CO-AUTHOR(S) List in the order they will appear in the manuscript.			
LAST NAME, FIRST NAME AND M.I.	GRADE/RANK	SQUADRON/GROUP/OFFICE SYMBOL	INSTITUTION (If not 59 MDW)
a. Primary/Corresponding Author Fisher, Reid A.	Ctr		Univ of the Incarnate Word
b. Esparza, Shandra D.	Ctr		Univ of the Incarnate Word
c. Webber, Bryant J.	O-4	559 THLS/ 559 MDG/ SGOZ	
d. Pawlak, Mary T.	O-4	559 THLS/ 559 MDG/ SGOZ	
e. Nye, Nathaniel S.	O-4	559 THLS/ 559 MDG/ SGOZ	
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18. AUTHOR'S PRINTED NAME, RANK, GRADE Bryant J. Webber, Maj, O-4		19. AUTHOR'S SIGNATURE WEBBER.BRYANT.J.1270119383	20. DATE April 13, 2017
21. APPROVING AUTHORITY'S PRINTED NAME, RANK, TITLE Maria J. Belmonte, Lt Col, O-5, Trainee Health Flight/CC		22. APPROVING AUTHORITY'S SIGNATURE BELMONTE.MARIA.J.1022954527	23. DATE April 14, 2017

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<b>1st ENDORSEMENT (59 MDW/SGVU Use Only)</b>		
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26. DATE REVIEWED 13 Jun 2017	27. DATE FORWARDED TO 502 ISG/JAC	
28. AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES If yes, give date. 13 Jun 2017 <input type="checkbox"/> N/A		
29. COMMENTS <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED The poster presentation is approved. The author revised his poster to reflect affiliations of each investigator and to state proprietary information was not being released.		
30. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Rocky Calcote, PhD, Clinical Research Administrator	31. REVIEWER SIGNATURE CALCOTE ROCKY D. 1178245844 <small>Digitaly signed by CALCOTE ROCKY D. 1178245844              DN: cn=US, ou=U.S. Government, ou=DoD, ou=PMI, ou=USAF              email=CALCOTE.ROCKY.D.1178245844              Date: 2017.06.15 16:12:24 -0500</small>	32. DATE June 15, 2017
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42. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Kevin Iinuma, SSgt/E-5, 59 MDW Public Affairs	43. REVIEWER SIGNATURE IINUMA KEVIN.MITSUGU.1296227 613 <small>Digitaly signed by IINUMA KEVIN.MITSUGU.1296227613              DN: cn=US, ou=U.S. Government, ou=DoD, ou=PMI, ou=USAF              email=IINUMA.KEVIN.MITSUGU.1296227613              Date: 2017.06.15 16:22:48 -0500</small>	44. DATE June 15, 2017
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# Athletic Trainer Integration in U.S. Air Force Basic Training

Reid Fisher, EdD, ATC<sup>1</sup>; Shandra Esparza, EdD, ATC<sup>2</sup>; Bryant Webber, MD, MPH<sup>3</sup>; Mary Pawlak, MD, MPH<sup>4</sup>; Nathaniel Nye, MD<sup>5</sup>; Justie Tchandia, PhD<sup>6</sup>; Thomas Cropper, DVM, MPVM<sup>7</sup>; Sarah de la Motte, PhD, MPH, ATC<sup>8</sup>

<sup>1</sup>Ila Faye Miller School of Nursing and Health Professions, University of the Incarnate Word, San Antonio, Texas; <sup>2</sup>556th Medical Group, 56th Medical Wing, Joint Base San Antonio-Lackland, Texas; <sup>3</sup>Injury Prevention Research Laboratory, Consortium for Health and Military Performance, Uniformed Services University of the Health Sciences, Bethesda, Maryland



## To assess the impact of embedded athletic trainers within basic military training on operational efficiency within the U.S. Air Force.

### RATIONALE AND SIGNIFICANCE

As a leading cause of morbidity among U.S. military members and trainees, musculoskeletal injuries have a major impact on both current and future operational readiness.<sup>1</sup>

*U.S. Air Force Basic Military Training (BMT)*

- The injury incidence density rate is 18.3 per 1,000 person-weeks (29.4 for females and 15.1 for males)<sup>2</sup>
- The injury period prevalence for the 7.5-week training course is 12.5%<sup>2</sup>
- The stress fracture period prevalence is 1.0% (1.9% for females and 0.8% for males)<sup>3</sup>
- Nearly half (47%) of all medical attrition from training is attributed to a musculoskeletal injury<sup>2</sup>
- Injured trainees are 3.0 times (95% CI: 2.8, 3.2) as likely to be discharged as their non-injured peers<sup>2</sup>
- Injured trainees who graduate are 2.9 times (95% CI: 2.7, 3.0) as likely to graduate late as compared to their non-injured peers<sup>2</sup>
- Injuries incur \$21.8 million in direct and indirect costs annually, not including long-term disability costs<sup>2</sup>



The views expressed are those of the authors and do not reflect the official views or policy of the Department of Defense or its Components

### PURPOSE

**To assess the impact of embedded athletic trainers within basic military training on operational efficiency within the U.S. Air Force.**

### HYPOTHESES

Athletic trainers have been used by all U.S. military branches, although published data on their effectiveness are limited.<sup>4</sup> We hypothesized that embedded certified athletic trainers with sports medicine physician oversight would improve outcomes in Air Force BMT in attrition, get fit referrals, and reduced stress fracture rates.

### METHODS

Investigators from the 559 Medical Group and the Ila Faye Miller School of Nursing and Health Professions at the University of the Incarnate Word partnered to design a community intervention trial to test these hypotheses.

We secured funding through the Congressionally Directed Medical Research Program's Fiscal Year 2014 Clinical Research Initiative Intramural Research Award on Military Training Injuries (award DM140461) for a 30 month intervention. After establishing a clinic in the 323<sup>rd</sup> training squadron with permission of the 737<sup>th</sup> training wing we hired two full-time athletic trainers to provide musculoskeletal care to the trainees of the 323<sup>rd</sup> squadron self-reporting with pain. Rates of trainee attrition, on-time graduation, get-fit referrals, and stress fracture rates were tracked



No proprietary information is being released to the public

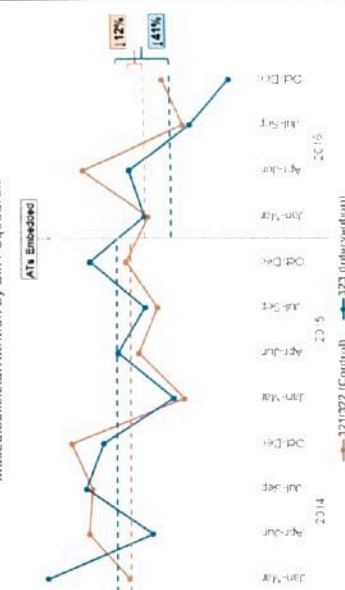
### RESULTS

#### Preliminary Results for year 1

- Trainees
- Intervention – 323<sup>rd</sup> squadron – 7,619 trainees
- Control – 321/22<sup>nd</sup> squadrons – 11,695 trainees

	Intervention (323 TRS)	Control (321/322 TRS)	Intervention vs Ctrl RR (95% CI)
Overall Attrition	5.4%	6.8%	<b>0.75 (0.71, 0.89)</b>
Musculoskeletal Attrition	1.0%	1.3%	<b>0.75 (0.57, 0.98)</b>
Get Fit Referrals	1.5%	1.4%	<b>1.08 (0.85, 1.37)</b>
Stress Fracture Rate	2.42	2.87	<b>0.84 (0.66, 1.08)</b>

Musculoskeletal Attrition by BMT Squadron



### CONCLUSIONS

Athletic training integration has effectively improved measures of operational efficiency in basic military training. Further significant impact is anticipated through the next two years of grant activity.

#### References:

- (1) MSMR 2016; 23(4):2-27
- (2) Nye et al, *J Athl Training* 2016; in press
- (3) Nye et al, *Sports Health* 2016 Mar 4; pii: 1941738116635558. [Epub ahead of print]
- (4) Knapik et al, *Epidemiological Report No. S.0007856-11*, October 2012.